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### Titles

 [Hawley's Condensed Chemical Dictionary \(14th Edition\)](#) 

 [Handbook of Refractory Carbides and Nitrides](#)



**Publisher:** William Andrew Publishing/Noyes

**Author/Editor:** Pierson, H.O.

**ISBN:** 0-8155-1392-5

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**Description:** Refractory carbides and nitrides are useful materials with numerous industrial applications and a promising future, in addition to being materials of great interest to the scientific community. Although most of their applications are recent, the refractory carbides and nitrides have been known for over one hundred years.


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The industrial importance of the refractory carbides and nitrides is growing rapidly, not only in the traditional and well-established applications based on the strength and refractory nature of these materials such as cutting tools and abrasives, but also in new and promising fields such as electronics and opto-electronics.



 [Handbook of Carbon, Graphite, Diamond and Fullerenes - Properties, Processing and Applications](#)


 [Dictionary of Biochemistry and Molecular Biology \(2nd Edition\)](#)

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 [Clinician's Handbook of Prescription Drugs](#)

 [Hydrogen Degradation of Ferrous Alloys](#)

material is sodium chloride (NaCl). Other examples of ionic bond are the salt-like carbides described in Sec. 5.4.

## 5.2 Covalent Bond

Covalent bonds are formed by the sharing of electrons (rather than transfer). Typically two atoms share a pair of electrons. A covalent structure, that of diamond, is shown schematically in Fig. 2.1.<sup>[7]</sup> The shaded regions designate a high probability of finding the shared electrons (see Sec. 3.3).

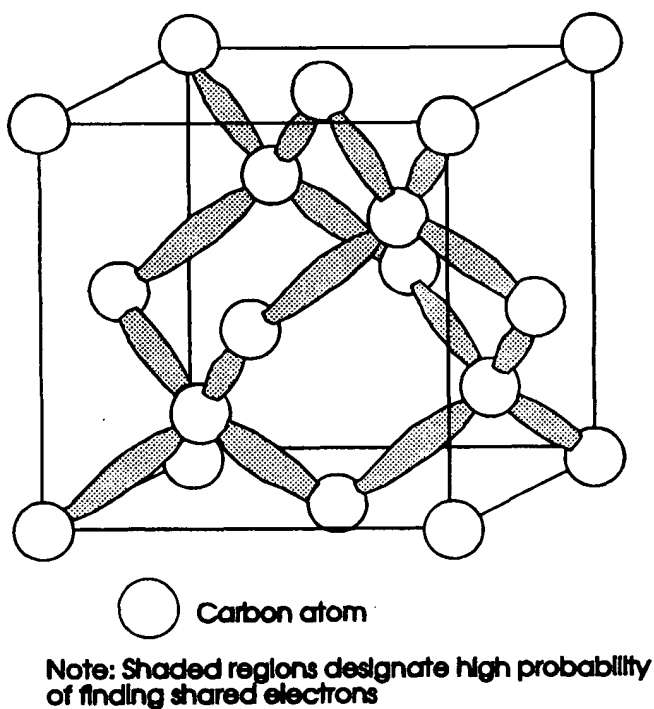


Figure 2.1: Schematic representation of the structure of the diamond crystal.